

REMARKS

Claims 1, 12-17, 25, 27-31 remain in the application. Claims 2-11, 18-24, 26 have been canceled. Independent claim 1 has been amended to include the limitations of allowed claim 9. Independent claims 12 and 25 have been amended to include the limitations of wherein the barrier comprises a first barrier molecule with a silicon atom coupled to a surface of the pore, a sulfur atom, and a flexible chain between the silicon atom and the sulfur atom, wherein the flexible chain comprises a portion of a bridge structure that is capable of sealing the pore. Support for this amendment can be found in paragraph 29 of the present application, for example. No new subject matter has been added with these amendments.

A. Claim Objections

Claims 13, 14, 28, 29 have been objected to for an informality. Claims 13, 14, 28, 29 have been amended to overcome the informality. Thus, reconsideration and withdrawal of the objection to these claims is respectfully requested.

B. 35 U.S.C. § 102

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claims 1, 7-8 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Ivanov, Kajura and Sawyer (Office Action, pages 3-4). Claim 1 has been amended to include the

limitations of allowable claim 9, and claims 7, 8 have been canceled. Ivanov, Kajura and Sawyer do not teach or suggest all of the limitations of allowable claim 1, thus it is respectfully submitted that claim 1 is not anticipated by Ivanov, and reconsideration and withdrawal of the Section 102(e) rejection of claim 1 is respectfully requested.

C. 35 U.S.C. § 103(a)

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Kuramatani in view of Sawyer-Claim 1, 7,8

Claim 1 has been amended to include the limitations of allowable claim 9, and claims 7, 8 have been canceled. Thus, reconsideration and withdrawal of the Section 103(a) rejection of claim 1 is respectfully requested.

Fleckenstein in view of Sawyer-Claim 25

The Office contends it would have been obvious to use the Dacron of Sawyer with the invention of Fleckenstein (to which the Applicants do not concede).

However, independent claim 25 has been amended to include the limitations described above. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA

1974). Because neither Fleckenstein and Sawyer, either alone or in combination, teach or even suggest the limitations of amended claim 25, claim 25 is not rendered obvious by Fleckenstein in view of Sawyer. Thus, reconsideration and withdrawal of the Section 103(a) rejection of claim 25 is respectfully requested.

Ivanov in view of Kajiura, Nie and Fleckenstein -Claims 12-16, 25-30

The Office contends it would have been obvious to use the coupling agent in Nie with the invention of Ivanov/Kajiura and the oxidizing agent of Fleckenstein (to which the Applicants do not concede).

However, independent claims 12 and 25 have been amended to include the limitations described above. “To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” In *re Royka*, 490 F.2d 981,180 USPQ 580 (CCPA 1974). Because neither Ivanov/Kajiura and Fleckenstein, Nie, either alone or in combination, teach or even suggest the limitations of amended claims 12 and 25, claims 12 and 25 (and claims 13-16, 26-30 dependent on 12 and 25 respectively) are not rendered obvious by Ivanov/Kajiura and Fleckenstein, Nie. Thus, reconsideration and withdrawal of the Section 103(a) rejection of claims 12-16, 25-30 is respectfully requested.

Ivanov in view of Kajiura, Nie and Fleckenstein, Cottle -Claims 17, 31

The Office contends it would have been obvious to use the aldehyde of Cottle in the inventions of Ivanov/Kajiura, Nie, Fleckenstein (to which the Applicants do not concede).

However, independent claims 12 and 25 have been amended to include the limitations described above. “To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” In *re Royka*, 490 F.2d 981,180 USPQ

580 (CCPA 1974). Because neither Ivanov/Kajiura and Fleckenstein, Nie, Cottle, either alone or in combination, teach or even suggest the limitations of amended claims 12 and 25, claims 12 and 25 (and claims 17 and 30 which dependent on claims 12 and 25 respectively) are not rendered obvious by Ivanov/Kajiura and Fleckenstein, Nie, Cottle. Thus, reconsideration and withdrawal of the Section 103(a) rejection of claims 17, 31 is respectfully requested.

In view of the foregoing remarks, the Applicants request allowance of the application. Please forward further communications to the address of record. If the Examiner needs to contact the below-signed Attorney to further the prosecution of the application, the contact number is (480) 715-5488.

Respectfully submitted,

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